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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,511	11/28/2003	Kenneth Carless Smith	13180-12	7664
1059	7590	07/02/2007		
BERESKIN AND PARR 40 KING STREET WEST BOX 401 TORONTO, ON M5H 3Y2 CANADA			EXAMINER MARMOR II, CHARLES ALAN	
			ART UNIT 3735	PAPER NUMBER
			MAIL DATE 07/02/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

10/722,511

Applicant(s)

SMITH ET AL.

Examiner

Zoe E. Baxter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-19 and 21-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,18 and 19 is/are rejected.
- 7) ☒ Claim(s) 4-17 and 21-32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 April 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The examiner recognizes the amendments filed April 11, 2007. Claims 1, 2, 4-19 and 21-33 are currently pending in the application. Claims 1, 4, 11, 18, 21, 23 and 29 have been amended. Claims 3 and 20 have been canceled.

### ***Drawings***

2. The drawings were received on April 11, 2007. These drawings are acceptable.

### ***Specification***

3. The substitute33 specification received on April 11, 2007 is accepted.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Organ et al. (U.S. Patent No. 6768921) in view of Skladnev et al. (U.S. Patent No. 6723049) and further in view of Seale (US Patent No. 4646754).

6. Referring to claim 1 Organ et al. teach a system comprising a first body part module and a second body part module, described as a right and left breast electrode

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array (column 19 line 29). Each electrode array injects a current into a body part and receives a corresponding voltage signal (column 11 lines 34-45). Organ et al. also teaches an impedance module (figure 12 reference 111), which measures the impedances for each pair of electrodes, combined in each electrode array (column 20 line 26-column 22 line 22). Organ et al. fail to teach a correction module for obtaining a correction value. Skladnev et al. teach a system which measures impedance and includes a correction factor (column 10 line 59-column 11 line 25). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Organ et al. to include the use of a correction factor similar to that of Skladnev et al. in order to nullify production variation in the electrodes while at the same time retaining tissue discrimination (Skladnev et al. column 10 lines 59-65). Neither Organ et al. nor Skladnev et al. teach a system wherein the correction module comprises a magnitude correction module and a phase correction module wherein the correction factor is composed of the magnitude correction factor and the phase correction factor. Seale teaches a system comprising a phase correction and a magnitude correction, since each of these corrections take place in different places (the phase correction value is determined in the demodulator and the magnitude is determined digitally in the computer); they are essentially separate modules for each (column 46 lines 43-46). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Organ et al. and Skladnev et al. to include a phase and magnitude correction module similar to that of Seale in order to

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standardize frequency dependencies of amplitude and phase (Seale, column 46 lines 41-43).

7. Referring claim 18 Organ et al. teach a method for diagnosing the possibility of disease comprising, injecting a first current into the first body part, receiving a corresponding first voltage signal, injecting a second current into a second body part, receiving a corresponding second voltage signal, calculating the first and second impedance values (column 22 line 26-column 26 line 22) and use them to diagnose the possibility of disease (column 7 lines 33-50). Organ et al. fail to teach the method of obtaining a calculation factor. Skladnev et al. teach a method of measuring impedance using a correction factor (column 10 line 59-column 11 line 25). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Organ et al. to include the use of a correction factor similar to that of Skladnev et al in order to nullify production variation in the electrodes while at the same time retaining tissue discrimination (Skladnev et al. column 10 lines 59-65). Neither Organ et al. nor Skladnev et al. teach a method wherein the step of obtaining a correction factor includes calculating a magnitude correction factor and calculating a phase correction factor where the first correction factor is composed of the magnitude correction factor and the phase correction factor. Seale teaches a method wherein the step of obtaining a correction factor includes calculating a magnitude correction factor and calculating a phase correction factor where the first correction factor is composed of the magnitude correction factor and the phase correction factor (column 46 lines 43-46). It would have been obvious to one of ordinary skill in the art at the time of the invention

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to modify the combination of Organ et al. and Skladnev et al. to include a phase and magnitude correction factor similar to that of Seale in order to standardize frequency dependencies of amplitude and phase (Seale, column 46 lines 41-43).

8. Claims 2 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Organ et al. in view of Skladnev et al. and further in view of Seale, as applied to claim 1 above, and further in view of Hubelbank et al. (U.S. Patent No. 5197479).

9. Referring to claim 2 the combination of Organ et al., Skladnev et al. and Seale teach all of the limitations of the claim but fail to teach the impedance is made up of non-body sources. Hubelbank et al. teach that system impedance is made up of non-body sources and skin (column 4 lines 20-27). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Organ et al., Skladnev et al. and Seale similar to that of Hubelbank et al. in order to include the inherent impedance including both non-body and skin impedance to better represent inherent impedance.

10. Referring to claim 19 the combination of Organ et al., Skladnev et al. and Seale teach all of the limitations of the claim but fail to teach the impedance is made up of non-body sources. Hubelbank et al. teach that system impedance is made up of non-body sources and skin (column 4 lines 20-27). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Organ et al., Skladnev et al. and Seale similar to that of Hubelbank et al. in order to include the inherent impedance including both non-body and skin impedance to better represent inherent impedance.

***Allowable Subject Matter***

11. Claims 4-17 and 21-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art of record fail to teach or fairly suggest a system or method for diagnosing the possibility of disease by impedance measurements using a phase or magnitude correction table.

***Response to Arguments***

12. Upon further consideration of claim 3 and 20 of the original claims, pertinent art was discovered and a rejection of the amended claims 1 and 18 has been made with reference to Seale.

***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zoe E. Baxter whose telephone number is 571-272-8964. The examiner can normally be reached on Monday-Friday 7:30am-4:00pm.

14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor II can be reached on 571-272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Charles A. Marmor, II  
Supervisory Patent Examiner  
Art Unit 3735

ZEB